

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Siva Subramanian

Serial No. 09/736,678

Filed: 12/13/2000

For: **DISTRIBUTED COMPUTATION IN NETWORK DEVICES**

Examiner: Avi M. Gold

Art Unit: 2157

Mail Stop Appeal Brief – Patents

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

Sir:

The present **REPLY BRIEF** is filed in response to the Examiner's Answer mailed June 6, 2007. If any fees are required in association with this reply brief, the Director is hereby authorized to charge them to Deposit Account 50-1732, and consider this a petition therefor.

REPLY BRIEF

A. Introduction

In the Appeal Brief filed January 10, 2007, Appellant argued that the Patent Office has not shown where all the elements of the claim are shown with sufficient particularity to sustain an obviousness rejection. In particular, the combination of cited references fails to teach or suggest routing nodes that include the claimed compute plane such that application level support for the select traffic is provided in the compute plane of the at least one routing node, as required by the claimed invention. Since the cited references, individually or in combination, fail to teach each and every limitation of the claimed invention, the claimed invention is patentable. In addition, the Patent Office has not shown that the proposed combination is proper. In particular, the Patent Office has not provided an apparent reason why a person having ordinary skill in the art would combine the elements of the prior art in the fashion claimed by the present invention. *KSR Int'l v. Teleflex, Inc.*, No. 04-1350, slip op. at 14 (U.S., Apr. 30, 2007). For the Patent Office to combine references in an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have combined the references. *Id.* at 15. Moreover, the Patent Office is ignoring portions of the references which teach away from the combination. In fact, the proposed combination would render the invention disclosed in the Denecheau reference unsuitable for its intended purpose, which makes the proposed combination improper.

Appellant relies upon the arguments made in the Appeal Brief filed January 10, 2007, and incorporates the same by reference herein in its entirety. In addition, Appellant addresses certain points in the Examiner's Answer mailed June 6, 2007, as detailed below.

B. Argument

- 1. The Combination of Denecheau, the Admitted Prior Art, and Nessett Is Improper Because the Patent Office Has Not Provided an Apparent Reason Why One of Ordinary Skill in the Art Would Combine the Elements of the Prior Art in the Fashion Claimed by the Present Invention**

The Supreme Court decision in *KSR Int'l v. Teleflex, Inc.*, No. 04-1350, (U.S., Apr. 30, 2007) addresses the issue of obviousness and the combination of elements in the prior art. The

Court did not totally reject the use of “teaching, suggestion, or motivation” as a factor in the obviousness analysis (see *KSR Int’l v. Teleflex, Inc.*, No. 04-1350, slip op. at 14-15 (U.S., Apr. 30, 2007)). Thus, since a showing of “teaching, suggestion, or motivation” can provide a helpful insight, Appellant respectfully submits that the points set forth in the Appeal Brief arguing that the Patent Office has not supported the stated motivation to combine the various references are still valid (see Appeal Brief filed January 10, 2007, pp. 12-13 and 17).

Moreover, even under *KSR*, Appellant respectfully submits that the Patent Office has not met its *prima facie* burden on obviousness. In particular, the Patent Office has not provided an apparent reason why a person having ordinary skill in the art would combine the elements of the prior art in the fashion claimed by the present invention. *KSR Int’l v. Teleflex, Inc.*, No. 04-1350, slip op. at 14 (U.S., Apr. 30, 2007). With respect to the proposed combination of Denecheau, admitted prior art (hereinafter “the AAPA”), and Nessett, the Patent Office asserts that the knowledge to combine is generally available to one of ordinary skill in the art as evidenced by the background of Appellant’s Specification at page 1, line 20 through page 3, line 5, which explains why it would be useful to include application level support during routing (Examiner’s Answer mailed June 6, 2007, p. 15). First of all, *KSR* does not change the fact that the apparent reason to combine the elements of the prior art in the fashion claimed by the present invention must come from the references themselves, or from the knowledge generally available to one of ordinary skill in the art, but it cannot come from Appellant’s Specification. MPEP § 2143; *In re Dow Chemical Co.*, 837 F.2d 469 (Fed. Cir. 1988). It is impermissible to pick and choose elements from the prior art while using the application as a template. *In re Fine*, 837 F.3d 1071 (Fed. Cir. 1988). To reconstruct the invention by such selective extraction constitutes impermissible hindsight. *In re Gorman*, 933 F.2d 982 (Fed. Cir. 1991). Thus, the Patent Office is not entitled to use Appellant’s Specification to provide the apparent reason to combine the elements of the prior art.

Second, the fact that it would be useful to include application level support during routing is merely a desired result; it is not an apparent reason why one of ordinary skill in the art would combine the elements of the prior art in the fashion claimed by the present invention. A person of ordinary skill in the art who wanted to include application level support during routing would not necessarily look to Denecheau, the AAPA, and Nessett to do so. Certainly, the Patent Office has not provided an apparent reason why a person of ordinary skill in the art would combine

these particular references in order to achieve application level support during routing in the manner claimed in the present invention. Accordingly, the Patent Office has not provided the apparent reason required by *KSR*. Thus, the combination is improper.

2. The Combination of Denecheau, the Admitted Prior Art, and Nessett Is Improper Because the Combination Would Render Denecheau Unsuitable for Its Intended Purpose

Appellant previously argued that the proposed combination would render Denecheau unsuitable for its intended purpose. Appellant notes that Denecheau still does not teach **any** application level processing in the node. While the Patent Office has stated that Denecheau teaches the elements of the claim at col. 3, lines 43-58 and col. 6, line 66 through col. 7, line 20 (see Final Office Action mailed April 10, 2006, p. 3), these passages discuss next hop routing based on destination, not based on the provision of application level processing. Denecheau teaches next hop routing based on destination. Adding application level processing would change the routing method of Denecheau and would result in situations where the next hop would not be based on destination, contrary to the intended purpose of Denecheau. Thus, the inclusion of application level processing actually renders Denecheau unsuitable for its intended purpose because routing to provide such application level processing would contradict the next hop identified by Denecheau's method.

The Patent Office also alleges that Appellant misunderstands the rejection and that the Examiner is looking at the teachings of a reference as a whole while relying on a portion of the reference that does not teach away from the invention (Examiner's Answer mailed June 6, 2007, p. 15). Appellant understands the rejection, but reiterates that the MPEP and case law actually contradict and prohibit what the Examiner is doing. The Patent Office asserts that it is looking at the teachings of the reference as a whole while relying on a portion of the reference that does not teach away from the invention. Relying only on portions of the reference which do not teach away and ignoring those portions which do teach away is not allowed. A prior art reference must be considered in its entirety, i.e. as a whole, **including** portions which would lead away from the claimed invention. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) (emphasis added); see also MPEP § 2141.02. Moreover, the fact that adding application level processing to Denecheau would render Denecheau unsuitable

for its intended purpose is evidence of non-obviousness, regardless of whether the Patent Office is relying only on isolated portions of Denecheau. MPEP § 2143.01.

3. The Combination of Denecheau, the AAPA, and Nessett Does Not Render Claims 1-47 and 50 Obvious Because the Combination Does Not Teach the Claimed Compute Plane

In response to Appellant's arguments that the combination does not teach the claimed compute plane (see Appeal Brief filed January 10, 2007, pp. 14-16), the Patent Office asserts that the Specification defines a compute plane on page 13, lines 21-30, which states that "the compute plane 14 is capable of implementing virtually any type of application, ranging from carrying out mathematical operations on payloads to implementing compression and encryption algorithms." (Examiner's Answer mailed June 6, 2007, p. 16). First of all, the cited portion of Appellant's Specification is not a definition of the compute plane; it merely sets forth functions that the compute plane may perform. The Specification discusses other functions performed by the compute plane as well (see, e.g., Specification, p. 13, lines 3-20). A configuration of one embodiment of a compute plane according to the present invention may be seen in Figure 8 and on page 20, line 6 through p. 21, line 17 of the Specification.

Second, as previously argued, just because the intermediate device of Nessett may perform some of the functions as the claimed compute plane does not make it a compute plane. To use an analogy, a modern computer is capable of performing literally hundreds, if not thousands of functions, including making a phone call, as well as word processing functions such as enabling a user to write a letter. But just because a telephone is also capable of making a phone call does not make it a computer. Likewise, a typewriter, which also enables a user to write a letter, is not a computer. In a similar fashion, the mere fact that the intermediate device of Nessett may perform some of the functions as the claimed compute plane does not make it a compute plane. This is especially true since the claimed invention requires that the application level support for the select traffic is provided in the compute plane, and there is no application level support being provided in the intermediate device of Nessett. The intermediate device of Nessett is not structurally equivalent to the claimed compute plane that is part of a routing node. Just because the intermediate device may perform some of the same functions as the claimed compute plane does not make it the claimed compute plane.

Second, even assuming that Nessett discloses an intermediate device which performs similar functions as the claimed compute plane, a point which Appellant does not concede, Nessett, alone or in combination with Denecheau and the AAPA, still does not teach configuring the routing nodes to include a control plane, a compute plane, and a forward plane, and selecting at least one routing node capable of providing the processing resources required to provide the application level support for the select traffic in the compute plane of the at least one routing node, as required by the claims. The Patent Office responds by stating that it is inherent that hardware devices need to be configured to be used (Examiner's Answer mailed June 6, 2007, p. 16). First, the Patent Office has not provided any support for such an inherency argument and therefore has not met its burden of proof to make an inherency argument. MPEP § 2112, citing *Ex parte Levy*, 17 U.S.P.Q.2d (BNA) 1461, 1464 (Bd. Pat. App. & Inter. 1990) ("In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.") (emphasis in original). Second, just because the hardware devices might need to be configured to be used does not mean that they are configured in the manner claimed by the present invention, namely that the routing nodes are configured such that at least one routing node capable of providing the processing resources required to provide the application level support for the select traffic in the compute plane of the at least one routing node is selected.

Third, the functions mentioned by the Examiner are not even part of the claims. Even if they were part of the claims, a prior art device that performs all the functions recited in the claims still does not render the claims unpatentable if there is any structural difference. MPEP § 2114. Here, there is a structural difference. The structural difference is that the intermediate device of Nessett is not the same structure as the claimed compute plane, as shown in Figure 8 of the Specification and described at page 20, line 6 through p. 21, line 17 of the Specification. Thus, the intermediate device of Nessett is not equivalent to the claimed compute plane.

The Patent Office asserts that MPEP § 2114 applies only to an apparatus claim. Appellant respectfully disagrees. Although MPEP § 2114 is entitled "Apparatus Claim," it is also directed to functional language. In addition, even the method claims of the present application recite structure as part of the claims (i.e., see claim 1, which recites "configuring the routing nodes to include a control plane, a compute plane, and a forward plane," and "selecting

at least one routing node capable of providing the processing resources required to provide the application level support for the select traffic in the compute plane of the at least one routing node”). Therefore, Appellant respectfully submits that MPEP § 2114 still is applicable since the claims at issue recite structural limitations. Appellant also notes that independent claims 16, 19, and 46 are directed to apparatus claims, so MPEP § 2114 would definitely apply to those claims. In any event, the intermediate device of Nessett is not equivalent to the claimed compute plane for the reasons discussed above.

C. Conclusion

For the foregoing reasons, the Patent Office has not shown where all the elements of the claims are shown with sufficient particularity to sustain an obviousness rejection. The combination of cited references fails to teach or suggest routing nodes that include the claimed compute plane such that application level support for the select traffic is provided in the compute plane of the at least one routing node, as required by the claimed invention. Since the cited references, individually or in combination, fail to teach each and every limitation of the claimed invention, the claimed invention is patentable.

In addition, the Patent Office has not shown that the proposed combination is proper. In particular, the Patent Office has not provided an apparent reason why a person having ordinary skill in the art would combine the elements of the prior art in the fashion claimed by the present invention, and the Patent Office is ignoring portions of the references which teach away from the combination. In fact, the proposed combination would render the invention disclosed in Denecheau unsuitable for its intended purpose, which makes the proposed combination improper.

For the above reasons, Appellant respectfully submits that claims 1-50 of the present application are allowable, and therefore requests that the Board reverse the Examiner and instruct the Examiner to allow the claims for these reasons.

Respectfully submitted,

WITHROW & TERRANOVA, P.L.L.C.

By:

A handwritten signature in black ink, reading "John R. Witcher, III". The signature is written in a cursive style with a large, stylized "J" and "W".

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